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/Brianna Dahlberg/  
**Brianna Dahlberg**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Allen Carroll

Application No. 10/679,701

Confirmation No. 9625

Filed: 03 October 2003

Title: **METHOD AND DEVICE FOR  
IMMERSION LITHOGRAPHY**

Group Art Unit: 1756

Examiner: Daborah

CHACKO DAVIS

**CUSTOMER NO. 22470**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INTERVIEW SUMMARY AND FURTHER COMMENTS**

Sir and Madam:

On June 27, 2007, Applicants conducted a three-way telephone interview with  
Examiners Daborah Chacko Davis and Mark Huff.

The agenda that we provided in advance indicated our desire to "discuss 1) the  
Examiner's shift in reliance from a publication that clearly does not qualify as prior art  
to a pair of sparse provisional applications and what the Examiner needs to do to  
support a rejection based on sparse provisional applications; 2) whether finality is  
inappropriate when the reference on which the rejection is based changes; and 3)  
features of the independent claims that do not appear in the provisional applications."  
The spirit of the interview was to explore a difficult quasi-legal issue for which the MPEP

provides no guidance, and to explore the disclosure of two provisional applications on which the Examiner was relying to give an early effective date to a reference which was not filed until well after the filing of this application.

During the interview, we used WebEx to view a number of documents of record. The documents that we viewed included the interview request, a page from the five page pre-appeal brief that included a diagram from this application and a brief narrative, the final Office Action, our response to the preceding non-final rejection, the Novak reference, the '112 provisional to which Novak claims benefit, the '033 provisional to which Novak claims benefit, an excerpt of MPEP § 706.02 (focusing on subparagraph (D)) and this application.

We discussed what is required to rely on the priority date of a thin provisional application when the reference cited does not otherwise qualify as prior art. The problems with relying on what we call a "thin provisional" application for a priority date include inadequate disclosure and evolution of the technology between the provisional and non-provisional filings. A four-page provisional application, as we have here, cannot support the same claiming as a fifty page non-provisional application, because it does not include as much disclosure. Sometimes, the provisional application does not support any of the non-provisional application, such as when the inventors change their approach during intervening months. The issue arises of how an examiner proceeds when the availability of a reference depends on the text of a thin provisional application.

Reliance on thin provisional applications for priority dates presents the same problems to examiners as those that applicants encounter when they need to rely on the provisional filing date to avoid a reference that has an effective date between filing dates of provisional and non-provisional applications. Because the MPEP only addresses the applicant's problem and not the examiner's problem, we presented the analogous MPEP guidance, particularly § 706.02. The rule articulated for applicants is:

**V. DETERMINING THE EFFECTIVE FILING DATE OF THE APPLICATION**

The effective filing date of a U.S. application may be determined as follows:

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(D) If the application properly claims benefit under 35 U.S.C. 119(e) to a

provisional application, the effective filing date is the filing date of the provisional application for any claims which are **fully supported under the first paragraph of 35 U.S.C. 112 by the provisional application.**

The key requirement that the MPEP emphasizes is that the provisional application must show that the subject matter relied upon is “fully supported under the first paragraph of 35 U.S.C. 112 by the provisional application.” The cited statutory provision includes the enablement and written description requirements.

We proposed that an examiner follow a two step process when evaluating whether a thin provisional application affords an early filing date for subject matter in a non-provisional application. We urge, as a practical matter, that the examiner begin by reviewing the provisional application’s disclosure. First, the examiner needs to find in the thin provisional both enablement and a “written description” of the technology that the examiner wants to assert. Second, the examiner must trace the enabling written description into the non-provisional application, because **the provisional application cannot be asserted as prior art**, only as a basis for giving an early effective date to a part of the non-provisional application. If the provisional application is four pages long and the non-provisional application is 50 pages long, then 46 pages of the non-provisional application are either redundant or not entitled to the early priority date. Our first/second order is not mandatory, but practical. When dealing with a thin provisional, it is easier to analyze four pages and look for repeated text in the 50 page document than it is to analyze the 50 page document and repeatedly give up on relying on the parts of the long disclosure that are not found in the four page provisional. The brevity of a thin provisional greatly restricts its ability to meet the formal written description requirement, because hints are unlikely to satisfy the written description requirement. If the Examiner would consider adding the applicants’ claims to the thin provisional application to be introducing new matter, the written description of the provisional fails, at least in part.

Examiner Huff indicated that he would need to go over this issue with others. We hope that this summary reaches him early enough to be useful in the consultation process.

We briefly looked at a page from the five page pre-appeal brief that included a diagram from this application and a brief narrative.

We turned to the '112 provisional. We looked at the figures cited in the final Office Action. We pointed out that they did not include an immersion medium supply port or at least one orifice arranged in the immersion optics, with particular reference to FIG. 2A of the '112 provisional. The Examiners wondered out loud where the immersion medium would come from. We responded that the written description requirement is not satisfied if one needs to ask that question. In our view, the final Office Action does not place any particular reliance on the '112 provisional, because it does not afford the Novak reference the benefit of an early filing date for any passages that relate to our claims.

We looked at the '033 provisional, which consists of three and one-half pages of text and one drawing. The "wick" portrayed and described is at the outer edge of the assembly and described as a "back-up device that collects immersion fluid missed by the vacuum device". This wick is not described as "a porous or fibrous material through which ... immersion medium is supplied", so it cannot read on that element of our claims. There is no mention anywhere in the '033 provisional of capillary action, so the written description requirement is not met for an early filing date of anything in the Novak reference that relates to capillary action. The written description requirement is not satisfied by the Examiner's interpretation of what is implied by the drawings, especially when the single figure does not provide enough information to determine whether capillary forces would be experienced. For instance, are the opposing surfaces close enough together to give rise to capillary forces? Are the opposing surfaces hydrophilic or hydrophobic? What is the immersion liquid? Too many questions are unanswered to satisfy the written description requirement.

During the interview the Examiners asked where our application discusses the material through which the immersion medium is supplied and the restriction by capillary forces. We followed up by leaving a voice mail message that identified relevant portions of the application. For the Examiners' benefit, [0029]-[0031] discuss the material. The design that controls capillary action to control the later extension of the immersion medium fluid is discussed in [0041].

It was agreed that the Examiners would provide feedback from their discussions with others and their further review of the art in the upcoming week or so. Applicants' counsel has tickled this matter for two week from the interview.

When the Examiners are ready to follow up, the undersigned can ordinarily be reached at his office at (650) 712-0340 from 8:30 a.m. to 5:30 p.m. PST, Monday through Friday, or can be reached at his cell phone at (650) 200-5150.

Respectfully submitted,

Dated: 29 June 2007

/Ernest J. Beffel, Jr./

Ernest J. Beffel, Jr.

Registration No. 43,489

HAYNES BEFFEL & WOLFELD LLP  
P.O. Box 366  
Half Moon Bay, CA 94019  
Telephone: (650) 712-0340  
Facsimile: (650) 712-0263